ASRock Z77 WS

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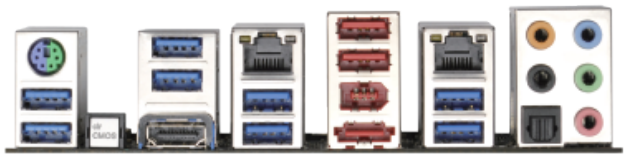
Workstation Motherboard

Intel® Z77 Chipset



Product Brief

- Premium Gold Caps
- Digi Power Design, 8 + 4 Power Phase Design
- Supports Dual Channel DDR3 3000+(OC)
- 5 x PCIe 3.0 x16 Slots, 1 x PCIe 2.0 x16 Slot,
- Supports AMD 4-Way CrossFireX™ and NVIDIA 4-Way SLI™
- Supports Intel® HD Graphics with Built-in Visuals
- 12 USB 3.0 (4 Front, 8 Rear), 6 SATA3
- 7.1 CH HD Audio with Content Protection (Realtek ALC898 Audio Codec), Supports THX TruStudio™
- Supports ASRock XFast 555, Interactive UEFI, Intel Smart Connect, Intel Rapid Start
- Free Bundle : CyberLink MediaEspresso 6.5 Trial, ASRock MAGIX Multimedia Suite

Detail Specification

Platform	- ATX Form Factor: 12.0-in x 9.6-in, 30.5 cm x 24.4 cm - Premium Gold Capacitor design (100% Japan-made high-quality Conductive Polymer Capacitors)
CPU	- Supports 3rd and 2nd Generation Intel® Core™ i7 / i5 / i3 in LGA1155 Package - Digi Power Design - 8 + 4 Power Phase Design - Supports Intel® Turbo Boost 2.0 Technology - Supports Intel® K-Series unlocked CPU - Supports Hyper-Threading Technology
Chipset	- Intel® Z77 - Supports Intel® Rapid Start Technology and Smart Connect Technology
Memory	- Dual Channel DDR3 memory technology - 4 x DDR3 DIMM slots - Supports DDR3 3000+(OC)/2400(OC)/2133(OC)/1866(OC)/1600/1333/1066 non-ECC, un-buffered memory - Max. capacity of system memory: 32GB - Supports Intel® Extreme Memory Profile (XMP) 1.3 / 1.2
Expansion Slot	- 5 x PCI Express 3.0 x16 slots (PCIE2: x16 mode OR PCIE1/PCIE3/PCIE5/PCIE7: x16/0/16/0 or x8/8/8/8 mode) * PCIE 3.0 is only supported with Intel® Ivy Bridge CPU. With Intel® Sandy Bridge CPU, it only supports PCIE 2.0. - 1 x PCI Express 2.0 x16 slot (PCIE4: x4 mode) - 1 x PCI Express 2.0 x1 slot - Supports AMD Quad CrossFireX™, 4-Way CrossFireX™, 3-Way CrossFireX™ and CrossFireX™ - Supports NVIDIA® Quad SLI™, 4-Way SLI™, 3-Way SLI™ and SLI™
Graphics	* Intel® HD Graphics Built-in Visuals and the VGA outputs can be supported only with processors which are GPU integrated. - Supports Intel® HD Graphics Built-in Visuals : Intel® Quick Sync Video 2.0, Intel® InTru™ 3D, Intel® Clear Video HD Technology, Intel® Insider™, Intel® HD Graphics 2500/4000 - Pixel Shader 5.0, DirectX 11 with Intel® Ivy Bridge CPU. Pixel Shader 4.1, DirectX 10.1 with Intel® Sandy Bridge CPU. - Max. shared memory 1760MB - Supports HDMI 1.4a Technology with max. resolution up to 1920x1200 @ 60Hz - Supports Auto Lip Sync, Deep Color (12bpc), xvYCC and HBR (High Bit Rate Audio) with HDMI (Compliant HDMI monitor is required) - Supports HDCP function with HDMI - Supports Full HD 1080p Blu-ray (BD) / HD-DVD playback with HDMI
Audio	- 7.1 CH HD Audio with Content Protection (Realtek ALC898 Audio Codec) - Premium Blu-ray audio support - Supports THX TruStudio™
LAN	- PCIE x1 Gigabit LAN 10/100/1000 Mb/s - Broadcom BCM57781 - Supports Wake-On-LAN - Supports Energy Efficient Ethernet 802.3az - Supports Dual LAN with Teaming function - Supports PXE
Storage	- 2 x SATA3 6.0 Gb/s connectors by Intel® Z77, support RAID (RAID 0, RAID 1, RAID 5, RAID 10, Intel Rapid Storage and Intel Smart Response Technology), NCQ, AHCI and "Hot Plug" functions - 4 x SATA3 6.0 Gb/s connectors by ASMedia ASM1061, support NCQ, AHCI and "Hot Plug" functions (SATA3_A4 connector is shared with eSATA3 port) - 4 x SATA2 3.0 Gb/s connectors by Intel® Z77, support RAID (RAID 0, RAID 1, RAID 5, RAID 10, Intel Rapid Storage and Intel Smart Response Technology), NCQ, AHCI and Hot Plug functions
Rear Panel I/O	I/O Panel - 1 x PS/2 Mouse/Keyboard Port - 1 x HDMI Port - 1 x Optical SPDIF Out Port - 2 x Ready-to-Use USB 2.0 Ports - 1 x eSATA3 Connector - 8 x Ready-to-Use USB 3.0 Ports - 2 x RJ-45 LAN Ports with LED (ACT/LINK LED and SPEED LED) - 1 x IEEE 1394 Port - 1 x Clear CMOS Switch with LED - HD Audio Jack: Rear Speaker / Central / Bass / Line in / Front Speaker / Microphone
USB 3.0	- 4 x Rear USB 3.0 ports by Intel® Z77, support USB 1.0/2.0/3.0 up to 5Gb/s - 4 x Rear USB 3.0 ports by Etron EJ188, support USB 1.0/2.0/3.0 up to 5Gb/s - 2 x Front USB 3.0 headers by Etron EJ188 (support 4 USB 3.0 ports), support USB 1.0/2.0/3.0 up to 5Gb/s
Connector	- 1 x IR header - 1 x CIR header - 1 x COM port header - 1 x HDMI_SPDIF header - 1 x IEEE 1394 header - 1 x Power LED header - 2 x CPU Fan connectors (1 x 4-pin, 1 x 3-pin) - 3 x Chassis Fan connectors (1 x 4-pin, 2 x 3-pin) - 1 x Power Fan connector (3-pin) - 24 pin ATX power connector - 8 pin 12V power connector - SLI/XFire power connector - Front panel audio connector - 3 x USB 2.0 headers (support 6 USB 2.0 ports) - 2 x USB 3.0 headers (support 4 USB 3.0 ports) - 1 x Dr. Debug with LED - 1 x Power Switch with LED - 1 x Reset Switch with LED - 1 x Clear CMOS Switch with LED
BIOS Feature	- 64Mb AMI UEFI Legal BIOS with GUI support - Supports "Plug and Play" - ACPI 1.1 Compliance Wake Up Events - Supports jumperfree - SMBIOS 2.3.1 Support - CPU Core, IGPU, DRAM, 1.8V PLL, VTT, VCCSA Voltage Multi-adjustment
Support CD	- Drivers, Utilities, AntiVirus Software (Trial Version), CyberLink MediaEspresso 6.5 Trial, ASRock MAGIX Multimedia Suite - OEM
Unique Feature	- ASRock Extreme Tuning Utility (AXTU) - ASRock Instant Boot - ASRock Instant Flash - ASRock APP Charger - ASRock XFast USB - ASRock XFast LAN - ASRock XFast RAM - ASRock Crashless BIOS - ASRock Interactive UEFI - Hybrid Booster: - CPU Frequency Stepless Control - ASRock U-COP - Boot Failure Guard (B.F.G.) - Good Night LED
Hardware Monitor	- CPU Temperature Sensing - Chassis Temperature Sensing - CPU/Chassis/Power Fan Tachometer - CPU/Chassis Quiet Fan (Allow Chassis Fan Speed Auto-Adjust by CPU Temperature) - CPU/Chassis Fan Multi-Speed Control - Voltage Monitoring: +12V, +5V, +3.3V, CPU Vcore
OS	- Microsoft® Windows® 7 / 7 64-bit / Vista™ / Vista™ 64-bit / XP / XP 64-bit compliant
Certifications	- FCC, CE, WHQL - ErP/EuP Ready (ErP/EuP ready power supply is required)
Accessories	- 2 x ASRock SLI_Bridge Cards - 1 x ASRock SLI_Bridge_3S Card - 1 x ASRock 3-Way SLI Bridge Card - Quick Installation Guide, Support CD, I/O Shield - 6 x SATA Data Cables - 1 x SATA 1 to 1 Power Cable

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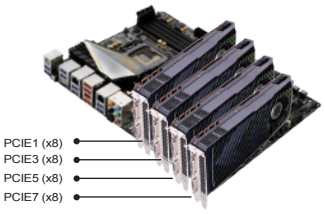
Intel® Z77 Chipset

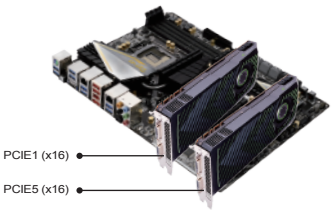
4-Way SLI & CrossFireX

Supported by PLX PEX 8747 Bridge

PLX PEX 8747 is a PCIe Gen3 bridge chip. It offers solid PCIe 3.0 lanes for PCIe devices and is optimized to support high performance graphics. With this bridge onboard, ASRock Z77 WS is able to work with dual VGA cards (2-Way SLI/CrossFireX) at PCI-E Gen3 x16 / x16 mode or four VGA cards (4-Way SLI/CrossFireX) at PCI-E Gen3 x8 / x8 / x8 / x8 mode.



- 4-Way SLI, 4-Way CrossFireX



- 2-Way SLI, CrossFireX

Premium Gold Caps

Premium Gold Caps are 100% made in Japan; these solid capacitors are sleek, high gloss caps with a premium gold coating representing long life and stable performance.

Digi Power

By adopting digital Pulse-width modulation (PWM), the Z77 motherboard can provide CPU Vcore voltage more efficiently and smoothly.

8 + 4 Power Phase Design

ASRock Z77 WS is designed with a 8 + 4 Power Phase design. It features sturdy components and completely smooth power delivery to the CPU. Plus, it offers unmatched overclocking capability and enhanced performance with the lowest temperature for advanced gamers as well.

4 x DDR3 3000+(OC)

ASRock 7-Series motherboards unlock maximum memory performance, coming with 4 DIMM slots for dual-channel memory, supporting up to DDR3 3000+(OC) MHz!

Next-Gen PCIe 3.0

- Higher bit rate - 8.0GT/s
- Higher bandwidth per lane - 1GB/s
- Higher efficiency - 98.5% encoding efficiency
- 100% backward compatible with previous PCI-E 2.0 / 1.0 standard

Interactive UEFI

ASRock Interactive UEFI is a blend of system configuration tools, cool sound effects and stunning visuals. The unprecedented UEFI provides a more attractive interface and brings a lot more amusing.

XFast 555

(XFast RAM, XFast LAN, XFast USB)

ASRock unique XFast 555 Technology (XFast RAM, XFast LAN, and XFast USB) allows users to experience 5 times performance boost in terms of system performance, LAN speed and USB transfer speed.

Intel Smart Connect Technology

Intel Smart Connect Technology keeps content continuously updated while the PC is asleep! It will periodically wake up the PC while in a sleep state and check updates for things like email, Twitter, Facebook, etc.

Intel Rapid Start Technology

Quickly return to where you left off with a PC that goes from deep-sleep to full awake in a flash.